

Amendments to the Drawings:

The attached drawing (1 page) includes changes to Figure 1 to show detector 11.

REMARKS

Claims 1 through 16 are pending, and all claims were rejected in the Office Action dated May 12, 2009. The matters raised in the Office Action will be addressed in the same order below, and reconsideration of the application is requested.

I. Objection to the Drawings

The Examiner objected to the drawings for failing to show a detector. An amended drawing sheets is submitted herewith showing the detector in Figure 1, identified by reference number 11. The specification has been amended accordingly at page 9, line 9. Withdrawal of the objection is respectfully requested.

II. Rejection of Claims Under 35 U.S.C. 102

Claims 1, 4, 5, 7 through 9, 11, 13, and 16 were rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,853,774 (Dreve). The Examiner indicated that Dreve discloses an apparatus for generating a multi-component compound, in particular for dental purposes, comprising the elements listed in the claims. For simplicity, the correlation between the claim elements and the structures or functions identified by the Examiner in Dreve will not be repeated herein. Applicants respectfully disagree for at least the following reasons, and request reconsideration of the rejection.

The pending claims are patentable over Dreve because Dreve does not disclose or suggest a stepping motor. In the passages in Dreve identified in the Office Action, Dreve says only that the speed of a (regular) motor may be "stepped," for example at column 2, lines 24 through 27. (In fact the priority application upon which the U.S. Dreve reference is based - DE 29617872.1 - at the corresponding place in the description discloses "Der elektromotorische Antrieb kann gegebenenfalls mit stufenweise oder auch stufenlos vorwählbaren Geschwindigkeitsstufen ausgestattet sein." which according to the U.K. family member (GB 2318394) translates approximately as "The electric motor drive can optionally be equipped with speed steps which can be preselected stepwise or even infinitely.") This is consistent with the remainder of Dreve, which appears to disclose only a standard DC electric motor with certain

speed control circuitry. Increasing, or “stepping” up the speed of an electric motor does not make that motor a “stepping motor” within the meaning of the present invention, and accordingly Dreve does not disclose or suggest a stepping motor as that element is used in the pending claims.

Because Dreve discloses only that the speed of a regular electric motor may be “stepped,” and does not disclose a stepping motor as that term is well known in the art, it cannot anticipate any of the pending claims that require a stepping motor. Reconsideration of the rejection of claims 1, 4, 5, 7 through 9, 11, 13, and 16 is therefore respectfully requested.

Furthermore, Dreve was said in the Office Action to disclose a detector associated with the stepping motor for detecting the load on the stepping motor. Applicants also respectfully disagree with that assertion, because Dreve discloses no more than a position sensor used to detect the position of a piston at the end of its operational range, not a load sensor. See Dreve at col. 2, lines 29-30. This is an independent basis for the patentability of claims 1, 4, 5, 7 through 9, 11, 13, and 16 – that Dreve does not disclose or suggest a detector for detecting the load on the stepping motor – and reconsideration of the rejection under 35 U.S.C. 102(b) over Dreve is respectfully requested for this reason as well.

III. Rejection of Claims Under 35 U.S.C. 103

Claims 1 through 16 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,315,164 (Muhlbauer et al.) in view of Dreve. The Examiner noted that Muhlbauer et al. discloses certain elements of claim 1, for example, but that it fails to disclose “the status of load by the step frequency of the stepping motor.” Office Action at page 6. The Examiner went on to indicate that Dreve discloses a device said to include a stepping motor, and that claim 1 was therefore obvious in view of the two references. Similar arguments were presented in support of the finding that the remaining claims were unpatentable over Muhlbauer et al. in view of Dreve.

The Office Action apparently concedes that Muhlbauer et al. does not disclose a stepping motor within the meaning of claims 1 through 16, but relies on Dreve for that element. Dreve, as described above, discloses only “stepping” the speed of a standard electric motor, not a stepping motor as that term is used with respect to the present invention. Accordingly the combination of the two references also lacks any disclosure or suggestion of a stepping motor, and without that element the claims cannot be said to be obvious in view of Muhlbauer et al. in view of Dreve. Reconsideration of the rejection of claims 1 through 16 is respectfully requested for at least that reason.

Furthermore, the absence in Dreve of a detector for detecting the load on the stepping motor, as described in the preceding section and incorporated by reference herein, is also applicable to at least claims 1 through 12 and 16, and Muhlbauer et al. is not said to remedy this deficiency. Reconsideration of the rejection on this basis is also requested.

Finally, a person of ordinary skill in the art would not have combined Muhlbauer et al. and Dreve in the manner suggested because of their incompatible teachings. Muhlbauer et al. is believed to seek a constant advance speed of the plungers (see col. 2, line 5 and line 22; col. 4, line 52 and 63-64, and col. 5, line 31), whereas Dreve discloses a variable speed control for the electric motor, as discussed above. Accordingly the combination of the two references in the manner suggested would not have been obvious to a person of ordinary skill in the art, and therefore the combination rejection is improperly made, and should be withdrawn.

IV. Conclusion

For at least the reasons mentioned above, pending claims 1 through 16 are believed to be patentable over the prior art of record, and reconsideration of the rejection of those claims is respectfully requested. If a telephone discussion with the Applicants' representative would be useful in resolving any remaining matters related to this application, the Examiner is invited to contact the undersigned at 651-736-4050.

Respectfully submitted,

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